

REMARKS

In the Non-Final Office Action dated August 07, 2007, claims 1-31 and 36-43 are pending. Claims 1-5, 7, 14-31*, and 36-43 stand rejected under 35 U.S.C. §102(e) over U.S. Patent No. 5,371,734 to Fischer. ("Fischer"). Each of claims 6 and 8-13 is objected as being dependent upon a rejected base claim but is otherwise indicated to be allowable. Applicant appreciates the indication of allowable subject matter in claims 6 and 8-13 and hereby expressly reserves the right to rewrite any one of those claims in independent form if its base claim is ultimately not allowed. Applicant traverses the rejections and objection, amends claims 1-4, 7, 14, 15, 17, 20, 21, 23, 26, 27, 29, and 38-40 to more particularly define the subject matter of the claimed invention, and cancels claims 16, 22, 28, and 41-43 without prejudice. Applicant also adds new dependent claims 44-46. All amendments are fully supported by the specification as originally filed and do not add new matter. Therefore, Applicant requests reconsideration in light of the following remarks.

According to the MPEP, "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference" (MPEP 2131). Fischer fails to teach each and every element of the independent claims.

Amended Independent Claim 1 Patently Distinguishes Over Fischer

Amended independent claim 1 recites a network having a hub device that generates and broadcasts a token including a stream identifier that identifies one of a plurality of logical unidirectional communication streams. The token is received by a peripheral device which, if identified by the token, analyzes the token to determine a size and direction of a data transfer and, based on this determination, transfers data to or receives data from the hub over the identified stream. Fischer fails to describe this subject matter.

* The Action failed to address claim 25. Applicant assumes for the purpose of this paper that the Examiner intended to reject this claims under 35 U.S.C. § 102(e) as being anticipated Fischer for similar reasons provided for the remaining claims.

In particular, Fischer fails to describe receiving a token that identifies a logical unidirectional stream and analyzing the token to determine a size and direction of data communication with a hub device. In rejecting this subject matter in pending claim 3, the Action asserts that block 202 in FIG. 11 of Fischer is a "stream number that identifies one of the communications [sic] streams." (Office Action, page 3, lines 12-15). Applicant disagrees.

According to Fischer, block 202 of FIG. 11 is a "broadcast data packet frame" destined for all remote devices and sent during a broadcast interval of each communication cycle. See Fischer, column 32, lines 32-56. Regarding "data packet frames," Fischer states:

The data packet frame is employed to convey network data in the body field of the frame. The data for the body of the data packet frame is usually a LAN packet being bridged to or from the local LAN segment or a LAN packet from the attached resource in cases where the communicators are serving as LAN adapters rather than network bridges.... Broadcast data packet frames are sent by a remote to the hub when the hub is to retransmit the data packet frame as a broadcast or a multicast to all communicators in the Group.

(Fischer column 30, lines 54-65). Thus, a broadcast data packet frame is employed to convey network data to all the remote devices. Fischer, however, fails to describe, teach, or suggest that the broadcast data packet frame identifies one of a plurality of logical unidirectional streams over which data may be transferred. The receipt of a token that identifies such a stream, however, is the explicit subject matter of amended independent claim 1. Thus, Fischer does not teach each and every limitation of amended independent claim 1, as is required for a rejection under § 102(e).

Applicant therefore requests reconsideration and withdrawal of the § 102 rejection of amended independent claim 1. Claims 2-5, 7, 14, 15, and 17-19 depend from claim 1 and add further limitations thereto. Applicant therefore also requests reconsideration and withdrawal of the § 102 rejections of claims 2-5, 7, 14, 15, and 17-19 for the same reasons.

Moreover, various ones of the claims that depend from claim 1 further patently distinguish over Fischer. For example, claim 14, which has been amended to include the subject matter of now cancelled claim 16, recites that at least one of the peripheral device and the hub

device transfers the same data in multiple forms with the particular form of each such transfer indicated by the stream on which the transfer occurs. As described in Applicant's specification, the use of multiple forms of data transfer, may for example, disperse transmission errors within the transmitted data and hence, facilitate reconstruction of received data that may be corrupted by transmission errors. See, e.g., Specification, page 14, lines 10-16. Fischer fails to describe the subject matter of claim 14. In particular, Fischer fails to describe transferring the same data in multiple forms and differentiating between the multiple forms of the data based on a stream on which the transfer occurs. The Action asserts that Fischer describes this subject matter because of "analog and digital discloses [sic] in Fischer's invention." See Office Action, page 4, lines 1-3. Applicant disagrees. Regarding the use of analog and digital transmissions, Fischer states:

Since many of the signals in the coherent demodulator 114 are analog signals, the coherent demodulator 114 includes comparators to establish digital waveforms and provide in-phase and quadrature phase data outputs in a form compatible with the other digital components of the communicator.

(Fischer, column 16, lines 58-63.) This passage describes using comparators to ensure compatibility between analog and digital components of a communicator. The passage, however, does not describe that the same data is transferred in multiple forms and the particular form of each transfer is identified by a stream identifier. Transferring the same data in multiple forms and identifying the form of each transfer based on a stream on which the communication, however, is the explicit subject matter of amended claim 14. Applicant therefore requests consideration and allowance of amended claim 14 for this additional reason. Amended claims 15 and 17 depend from claim 14 and add further limitations thereto. Applicant therefore requests reconsideration and withdrawal of the rejection of these claims as well.

In addition, amended claim 15 further recites that the multiple forms include an original form and at least one of a complemented form and a reverse order form. Amended claim 17 recites combining the multiple forms of the same data to reconstruct the transmitted data. The Action fails to address the subject matter in either of these claims or to identify any particular section of Fischer that describes either subject matter. Applicant has carefully reviewed Fischer and finds, on the basis of this review, that Fischer does not describe the subject matter of either

claim. For this additional reason, Applicant requests reconsideration and withdrawal of the § 102 rejection of claims 15 and 17. If the Examiner intends to maintain the rejection of these claims, Applicant requests that the Examiner point, with specificity, to where each subject matter is described in Fischer.

Amended Independent Claim 20 Patently Distinguishes Over Fischer

Amended independent claim 20 recites similar subject matter as claim 1. Specifically, amended claim 20 recites a network including hub means that broadcasts a token identifying a logical unidirectional communication means and peripheral means that receives the token, and if identified by the token, analyzes the token to determine a size and direction of data communication that takes place over the identified unidirectional communication means. As set forth above, Fischer fails to describe this subject matter.

Applicant therefore requests reconsideration and withdrawal of the § 102 rejection of independent claim 20.

Amended Independent Claim 21 Patently Distinguishes Over Fischer

Amended independent claim 21 recites similar subject matter as claim 1. Specifically, claim 21 recites a method for transmitting data in a network having a hub device connected to at least one peripheral device. As recited in the claim, a token including a stream identifier for one of a plurality of logical unidirectional streams that is generated and broadcasted by the hub device is received and analyzed at the peripheral device to determine the size and direction of a data transfer that may occur over the identified stream. As set forth above, Fischer fails to describe this subject matter.

Applicant therefore requests reconsideration and withdrawal of the § 102 rejection of amended independent claim 21. Claims 23-27 and 29-31 depend from claim 21 and add further limitations thereto. Applicant therefore requests reconsideration and withdrawal of the § 102 rejection of these claims as well.

Moreover, various ones of the claims that depend from claim 21 further patently distinguish over Fischer. For example, claim 25 recites determining whether the identified communication stream is active for the peripheral device. The Action failed to address the subject matter of this claim. As set forth above, Fischer fails to describe communicating over a logical unidirectional stream identified in a token received by the peripheral device. Fischer also fails to describe determining whether such an identified stream is active for the peripheral device. Applicant therefore requests reconsideration and withdrawal of the § 102 rejection of claim 25 for this additional reason.

In addition, amended claims 26, 27, and 29 recite similar subject matter as claims 14, 15, and 17, respectively. Specifically, amended claim 26 recites transmitting the same data in multiple forms and identifying the form of transfer by the stream on which the communication occurs. Claim 27 recites that the multiple forms may include an original form and at least one of a complemented form and reverse order form. And claim 29 recites that combining the multiple forms of data to reconstruct the data. As set forth above, Fischer fails to describe this subject matter. Applicant therefore respectfully requests reconsideration and withdrawal of the § 102 rejections of claims 26, 27, and 29 for this additional reason.

Original Independent Claim 36 Patently Distinguishes Over Fischer

Original independent claim 36 recites a method for transferring data in a network connecting a hub device to a set of peripheral devices. The network operates according to a communications protocol having a plurality of alternating token slots and data transfer slots. As recited in the claim, a token identifying a peripheral device and a communication stream is generated and broadcast to the network during one of the token transfer slots and data is communicated between the peripheral device and the hub on the identified communication stream during one of the data transfer slots. Fischer fails to describe this subject matter.

As set forth above, Fischer fails to describe a token that identifies a communication stream over which data transfer between a hub and a peripheral device occurs. Thus, Fischer does not teach each and every limitation of independent claim 36, as is required for a rejection under § 102(e).

In addition, claim 36 specifically recites a network that employs a communications protocol having alternating token and data transfer slots. This subject matter, located in the preamble, breathes life and meaning into the claim by providing antecedent basis for the terms "one of the token slots" and "one of the data transfer slots" recited in the claim elements, and therefore must be construed as a limitation on the scope of the claim. See, e.g., NTP, Inc. v. Research in Motion LTD, 75 U.S.P.Q.2D 1763, 1781 (Fed. Cir. 2005); see also Eaton Corp. v. Rockwell Int'l Corp., 323 F.3d 1332, 1340 (Fed. Cir. 2003); and also MPEP § 2111.02. The Action completely fails to address this subject matter or to identify any particular section of Fischer that describes this subject matter. Moreover, Applicant has carefully reviewed Fischer and finds, on the basis of this review, that Fischer does not describe this subject matter. Thus, for this additional reason, Applicant requests reconsideration and withdrawal of the § 102 rejection of original independent claim 36. If the Examiner intends to maintain this rejection, Applicant requests that the Examiner point, with specificity, to where this subject matter is described in Fischer.

Original Independent Claim 37 Patently Distinguishes Over Fischer

Original independent claim 37 recites similar subject matter as claim 36. Specifically, claim 37 recites a hub device in a network that employs a communications protocol having a plurality of alternating token and data transfer slots. As recited in the claim, the hub device includes a memory having instructions for performing a method similar to that described in claim 36. As set forth above, Fischer fails to describe this subject matter.

Applicant therefore requests reconsideration and withdrawal of the § 102 rejection of original independent claim 37.

Amended Independent Claim 38 Patently Distinguishes Over Fischer

Amended independent claim 38 recites a method for transmitting data over a network performed by a peripheral device connected through the network to a hub device. As recited in the claim, a token that identifies one of a plurality of logical unidirectional communication streams is received and analyzed by the peripheral device to determine a size and direction of a

data transfer, and the data is transferred over the identified stream based on the determined size and direction. As set forth above, Fischer fails to describe this subject matter.

Applicant therefore requests reconsideration and withdrawal of the § 102 rejection of amended independent claim 38.

Moreover, amended claim 39, which depends from claim 38, further patently distinguishes over Fischer. Specifically, claim 39 recites, among other things, determining the direction and size of the data transfer from a communications stream identifier included in the token. The Action fails to address this subject matter in the rejection of claim 39 or to identify any particular section of Fischer that describes this subject matter. Applicant has carefully reviewed Fischer and finds, on the basis of this review, that Fischer does not describe this subject matter. For this additional reason, Applicant requests reconsideration and withdrawal of the § 102 rejection of claim 38. If the Examiner intends to maintain this rejection, Applicant requests that the Examiner point, with specificity, to where this subject matter is described in Fischer.

Amended Independent Claim 40 Patently Distinguishes Over Fischer

Amended independent claim 40 recites similar subject matter as claim 38. Specifically, claim 37 recites a peripheral device that includes a processor that executes instructions for a process that is similar to that described in claim 38. As set forth above, Fischer fails to describe this subject matter.

Applicant therefore requests reconsideration and withdrawal of the § 102 rejection of amended independent claim 40. New claims 44-46 depend from claim 40 and add further limitations thereto. Applicant therefore requests consideration and allowance of claims 44-46 for the same reasons.

Moreover, various ones of the claims that depend from claim 40 further patently distinguish over Fischer. For example, new dependent claim 46 recites that the peripheral device communicates according to a communication protocol having a plurality of alternating token transfer slots and data transfer slots, and that the processor receives the token during a token

transfer slot and transfers the data during a data transfer slot immediately following the token transfer slot. As set forth above, Fischer fails to describe this subject matter. Applicant therefore requests consideration and allowance of new claim 46 for this additional reason.

The Objections to Claims 6 and 8-13

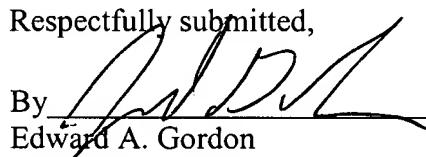
The Action objected to claims 6 and 8-13, which depend from amended independent claim 1, as being dependent upon a rejected base claim but indicated that the claims were otherwise allowable. As set forth above, Fischer fails to anticipate amended independent claim 1. Applicant therefore requests reconsideration and withdrawal of the objection to claims 6 and 8-13.

In view of the above amendment and remarks, Applicant believes the pending application is in condition for allowance.

Applicant believes no fee is due with this response other than as reflected on the enclosed Fee Transmittal. However, if a fee is due, please charge our Deposit Account No. 18-1945, under Order No. BBNT-P01-320 from which the undersigned is authorized to draw.

Dated: November 7, 2007

Respectfully submitted,

By 
Edward A. Gordon

Registration No.: 54,130
ROPES & GRAY LLP
One International Place
Boston, Massachusetts 02110-2624
(617) 951-7000
(617) 951-7050 (Fax)
Attorneys/Agents For Applicant